A. Intermediates & Chemicals

[redacted]

UREA

25X1A2g 19114

Source: The Farm - Spring 1953, pg. 57

Urea is a new cattle feed. It looks like sugar, tastes like salt, with a stinger added. All ruminants, cows, goats, sheep, benefit from urea; animals with one stomach, like hogs, horses or poultry, can't make use of it and may be harmed by large amounts of it.

When you feed a 1,000 pound steer a tablespoon of urea, the bacteria in the steer's rumen are galvanized into action. It is these bacteria, by eating, growing and propagation, which make protein. Through their activity in the rumen, they convert inexpensive roughage into costly protein. When the usual protein concentrates are high or scarce, urea is a good out for the cattleman.

In general, urea is utilized most efficiently when fed in small amounts (i.e., less than 0.1 pound per animal per day) and less efficiently when fed in large amounts in cattle rations (i.e., more than 0.25 pound per animal per day).

NEW BORON COMPOUNDS

Source: Chemical Week - 4-18-53, pg. 11

American Potash and Chemical Corp. (Los Angeles) has been quietly making developmental lots of elemental boron for some time, will soon introduce a series of new boron compounds: boron acetate and a number of borates -- tri-n-butyl, tricyclohexyl, tri-n-dodecyl, tri (methylamyl), tri (tetrahydrofurfuryl), tri (2-ethylhexyl), tricresyl and tri (tetradecyl). Samples of these are available, and the firm promises other new chemicals soon.

SAFFLOWER OIL

Source: Chemical Week - 4-18-53, pg. 18

Safflower oil for paint and meal for livestock feeding will be the main products of $250,000 mill to be constructed by the Western Safflower Corp. in Colorado Springs. Mill capacity: 125 tons of safflower seed (thistle) daily, with eventual expansion to 400 tons. Estimated production date: Sept. 1, 1953.

PHTHALIC ANHYDRIDE/AUSTRIA

Source: Chemical Week - 4-18-53, pg. 30

Reports are that Austrian Nitrogen Works (Linz) has completed erection of its phthalic anhydride plant.

NAPHTHENIC ACID PRODUCTION COULD DOUBLE, SURVEY SHOWS

Source: Oil, Paint and Drug Reporter - 4-13-53, pg. 46

The capacity of the oil refining industry to produce naphthenic acid 130 degrees or higher [illegible] double the present output, a survey just completed by the Petroleum Administration for Defense shows, according to P.A.D. administrator, [illegible]

NAPHTHENIC ACID (cont'd)

This survey, which covered refineries representing about 72 per cent of total refinery capacity in the country, indicated that current annual production of this grade of acid totals about 33,600,000 pounds, Mr. Warren said. In the event of an emergency, however, the refineries could produce more than 32,500,000 pounds of additional acid each year.

NEW PRODUCTION OF PHTHALIC SOON

Source: Journal of Commerce - 4-28-53

While new production of phthalic anhydride is likely to come into the market some time next month, the market generally has materially strengthened over the past week or ten days.

The Barret Division, Allied Chemical & Dye Corp., is expected to have its new plant in Chicago in operation in a few weeks. Estimates place the output at around 30,000,000 to 35,000,000 pounds a year. Some makers were fully booked on their anticipated output early in April and will probably go into May with a backlog of unfilled orders.

MORE USES FOR FORMALDEHYDE

Source: Wall Street Journal - 4-28-53

Heyden Chemical Corp. reports it has developed a new solid form of formaldehyde and is producing it in commercial quantities by a special process.

Formaldehyde proper is a colorless gas often used in solution as an antiseptic or disinfectant. Chemicals based on it are used to make paint and other surface coatings.

Big advantage of the new type, known as "Superfyde" is that it contains less than 1-10 of 1% water content. Heyden says this means the product has special advantages for processes in the plastics, textile, rubber and other industries, which call for formaldehyde, but where the presence of water prevents the proper reaction.

NEW NAPHTHALENES

Source: Chemical Week - 4/25/53, pg. 34

Three new naphthalene derivatives are available in research and developmental quantities from Raymond C. Creppen Research and Development Laboratories (Baltimore, Md.). They are: a-naphthaldehyde, a-naphthyl carbinol, and a-naphthoic acid.

B. Dyes & Pigments

WHITENER

Source: Chemical Week - 4-4-53, pg. 52

Hilton-Davis Chemical Company is introducing a new optical whitening agent tabbed Hiltamine Artic White N. It is designed for nylon and wool, and can be applied from alkaline detergent baths as well as soap baths.

DYNADYE DEBUT

Source: Chemical Week - 4/4/53

Recently introduced by Amalgamated Chemical Corp. (Philadelphia), Dynadye V is being promoted as a dyeing assistant for the processing of Dacron, Orlon and Dynel fibers either by themselves or in blends with viscose and acetate. It is a sodium salt of a complex phenol, is said to give higher color fastness.

COMMONWEALTH DISCONTINUES DYESTUFF AND TEXTILE CHEMICAL MANUFACTURING

Source: American Dyestuff Reporter - 4-27-53, pg. 279

Commonwealth Color and Chemical Company, New York, has discontinued the manufacture of dyestuffs and chemical specialties, effective April 15.

Arrangements have been made with Nyanza Color and Chemical Co., Inc., New York to continue the manufacture and sale of the majority of these products.

FADING IN LIGHT-SENSITIVE DYES DEPENDS ON STRUCTURE CHANGES

Source: Chemical and Engineering News - 4-20-53, pg. 1658

Studies of the absorption spectra of thioindigo and azo dyes indicate correlations between color changes and changes in molecular configuration, according to a research program at the National Bureau of Standards. The bureau's study was confined to phototropic dyes (those which exhibit reversible changes in their spectra upon irradiation with visible or ultraviolet light), but it should provide a basis for further studies on the irreversible fading of dyed fabrics.

The benzene and chloroform solutions of a number of thioindigo dyes were investigated. It was found that the absorption spectrum of the solution was dependent on the illumination to which it had been exposed before the measurement. The change, which was readily reversible, could, on occasion, be observed visually. NBS attributed the change to a shift in the equilibrium between the cis and trans forms.

The two isomers of thioindigo were separated chromato-graphically and their absorption spectra were determined, thus confirming the theory. Apparently, irradiation of one isomer with light of the wavelength range selectively absorbed by that isomer, results in partial conversion to the other isomer.

The study was extended to azo dyes, where parallel observations were made.

DYESTUFFS/GERMANY

Source: Chemical Week - 4-18-53, pg. 30

Three new dyes have recently been introduced to the German market by two of the successor companies of I.G. Farben. Farbwerke A.G., Hoechst, has brought in the acid dyestuff Remalanbrillantblau B, plugged as "surpassing all known acid blue dyes", and suited for polyamide fibers. Badische Aniline-und Sodafabrik, Ludwigshafen, is producing Basolanchromrat, a uniform red dyestuff for after-chromiummizing, and Lurantin light turquoise blue FBL, a uniform substantive dyestuff that withstands bleaching.

PITTSBURGH DYES

Source: Chemical Week - 4-18-53, pg. 65

To market dyestuffs in Pennsylvania, New Jersey, Delaware, Maryland, and Virginia, the Fine Chemicals, Div. of Pittsburgh Coke and Chemical Company opened a new sales office near Philadelphia - at Bala-Cynwyd, Pennsylvania.

INK AID

Source: Chemical Week - 4-25-53, pg. 37

Transa Flo Yellow 72 T 18 is the newest pigment offering by Ansbacher Siegle Corp. A transparent Hansa yellow toner, the product is earmarked exclusively for use in printing inks. Ansbacher Siegle claims that inks containing the new yellow (and lithographic varnish) don't lose tack, become short and buttery after several months. Inks made from resinated Hansa yellows and lithographic varnish ordinarily tend to thicken as they age.

I

C. Pharmaceuticals

DRUGS FOR THE NEAR EAST

Source: Chemical and Engineering News - 4-27-53, pg. 1720

Squibb will open a manufacturing laboratory in Istanbul on May 29. The $1.5 million plant will produce penicillin, streptomycin, isoniazid, insulin, B_{12}, and other vitamins and drugs. Built with both Turkish and American capital, the plant will eventually employ 250 to 300 people, all of whom will be Turks except the top management. Raw penicillin and streptomycin will come from Italy, Britain, and the U. S., and the compounded products will be exported all over the Near East. Isoniazid and streptomycin will be used in fighting tuberculosis, currently Turkey's most pressing health problem.

CANADIAN PRODUCTION OF PHARMACEUTICALS

Source: The Chemical Age - 3-21-53, pg. 454

Production in Canada in 1951 of patent and proprietary medicines, pharmaceuticals and biologicals rose in value to $82,131,000, a new high figure as compared with $69,325,000 in the preceding year, the Bureau of Statistics reports. Imports of these commodities were valued at $22,427,000 compared with $18,629,000, while the exports totalled $6,037,000 against $4,298,000.

There were 206 establishments in 1951 engaged chiefly in the manufacture of these items, four less than in 1950. Their employees numbered 7,481 as compared with 7,524 and salary and wage payments aggregated $18,918,000 against $16,638,000. Plants in Ontario and Quebec accounted for all but a small part of the total.

WEAPON AGAINST LEUKEMIA

Source: Chemical and Engineering News - 4-13-53, pg. 1503

Researchers at Sloan-Kettering Institute, the research unit of Memorial Center for Cancer and Allied Diseases in New York, announced last week a new chemical agent for temporary control of leukemia. In work reported at the Chicago meeting of the American Association for Cancer Research, outstanding success has been obtained by treating the disease with 6-mercaptopurine. Thus far, 107 patients have received the drug. Leukemia patients eventually develop resistance to folic acid antagonists, ACTH, cortisone, and other compounds used in treating the disease. Thus, patients who no longer respond to these drugs may gain prolonged life, if only for a few months, with 6-mercaptopurine. Currently in limited supply, the drug is being distributed by Wellcome Research Laboratories to a small group of clinical investigators.

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D. Plastics, Resins and Rubber

RUBBER CONSUMPTION - MARCH

Source: The Rubber Manufacturers Association - April 21, 1953

The rubber industry established a new monthly high consumption record during March when 128,237 long tons of new rubber was put in process. This compares with 113,820 long tons used during February and 120,576 long tons during January which was the previous record month for the industry. Prior to 1953 the high record month was October 1950 when 119,844 long tons of new rubber was consumed.

The report shows that natural rubber during March increased 11.96% to 50,339 long tons from the 44,960 long tons used during February. Synthetic rubber used amounted to 77,898 long tons, an increase of 13.13% above the previous month's total of 68,860 long tons.

RUBBER CONSUMPTION - MARCH (cont'd)

Consumption of reclaimed rubber by the industry was estimated at 27,379 long tons, 14.42% higher than February's consumption of 23,929 long tons.

POLYTHENE DERIVATIVE IMPARTS OZONE RESISTANCE TO RUBBER

Source: Chemical Engineering - April 1953, pg. 132

Longer lasting and improved rubber products are the prospect held out by a team of Du Pont chemists. They have developed a chlorsulfonated polythene, which when blended with natural and synthetic rubbers prevents cracking due to ozone attacks. Du Pont is now producing semi-commercial quantities of the chlorsulfonated polythene at Belle, West Virginia.

I
E. Miscellaneous

ARMOUR LATHER

Source: Chemical Week - 5-2-53, pg. 51

Armour and Co. is kicking off a new synthetic detergent in Omaha, Nebr., area. Tagged Armour Suds, the new product is a heavy-duty detergent designed to compete with allpurpose detergents like Tide. Suds are featured now in a sale of two 19 oz. boxes for 47¢ and will soon be introduced in the Chicago area.

Armour is planning to sell the same product -- a lauryl sulfate -- under the Perk label in some regions, superseding the soap that was formerly sold under that name.

SILVER CLEANERS

Source: Chemical and Engineering News - 4-6-53, pg. 1376

One of the popular household chemical formulas cleans silver by merely dipping, then rinsing. A typical formulation consists of 7% thiourea, 1% non ionic wetting agent, sufficient acid to give a pH of 1, or slightly below, plus water, perfume and color. Although Food and Drug Administration does not permit the use of thiourea in food, its dilution in the product, plus rinse-off apparently makes it harmless. Ingestion of thiourea is said to inhibit the body's use of iodine, lower metabolic rates. On use the thiourea forms a soluble complex with silver sulfide.

TEXTILE TREATMENT

Source: Chemical and Engineering News - 4-13-53, pg. 1580

Permachem Corp. has a product which is claimed to impart germ-killing properties to textiles of natural or synthethic fibers. The company says that the product is also applicable to paper and pulp products, plastics, paints, cosmetics, cements, floor was, rubber goods, and a variety of other materials.

II. New Products and Types Approved for Manufacturing.

88021-01	Calcosol Fast Yellow GL Paste
49008-02	Calcofluor White 2RT
52002-21	Calco Alkali Blue Toner K Special 58-4576
42112-01	Calcodur Resin Fast Blue R
42113-01	Calcodur Resin Fast Blue 6G
42112-02	Calcodur Resin Fast Blue R Conc.
44035-01	Calcofluor Sea Green
05108-01	Calconyl Blue G Double Solution (New Type)
16112-01	F D & C Red No. 4
58645-39	Calco Chrome Yellow Light 40-3617
09411-01	Paramul Repellent 253A
06621-08	Calco Cobalt Blue 59-6204 and Calco Ultramerine Cobalt Blue Z-6204
84025-02	Calcoloid Olive R Double Powder (New Type)
56474-01	Calco Reduced Naphthol Red M 21-7514
84037-01	Calcoloid Olive TR Double Powder
33004-27	Calcochrome Brown EBL 80%

III. Calco's Publications Committee Approvals

1. "A Stable Form of Methyl Orange Indigo Carmine Indicator" by H. J. Saling and H. J. Rodenberger. To be published in the "Chemist Analyst".

2. "High Temperature Dyeing" by C. L. Zimmerman. For presentation at the April 17 meeting of the A.A.T.C.C. at Fairleigh-Dickinson College and for publication in the American Dyestuff Reporter.

3. "Stationary Storage of Liquid Chlorine" by A. S. Woodard and L. L. Hedgepeth. To be presented in Grand Rapids, Michigan on May 11, 1953.

4. "Manual and Continuous Plotting Attachments for the Beckman DU Spectrophotometer" by G. L. Royer, H. C. Lawrence, S. P. Kodama and C. W. Warren. To be presented at the Ohio State Conference and also at the fall meeting of the American Chemical Society in Chicago.

5. "Piperazines. IV. 1-Heterocyclic-4-Substitutedcarbamyl-and-Thiocarbamyl-Piperazines," by E. A. Conroy, N. Q. Quinones, K. L. Howard, H. W. Stewart and J. J. Denton. For submission to the Journal of Organic Chemistry.